DRAWING AMENDMENTS:

Figure 4 is amended herein to include the reference numeral 16'.

A marked up sheet including the proposed change to Figure 4 is found at Appendix A of this Reply.

A Figure 4 replacement sheet including reference numeral 16' is found at Appendix B of this Reply.

REMARKS

Claims 1-15 are pending in the application.

Figure 4 is amended above to add a numerical designation.

No new matter is added to the application by way of this drawing amendment.

I. THE PRIORITY DOCUMENT

The examiner acknowledged Applicant's priority claim but indicates that the Applicant has not filed a certified priority document as required by 35 USC 119(b).

The Applicant notes that the above-identified patent application is a PCT national phase patent application filed pursuant to 35 USC 371. As such, a copy of the priority document for this case is believed to have been transmitted to the U.S. Patent Office by the International Bureau. Therefore, the requirement that a priority document be filed for the case has been met.

II. THE DRAWING OBJECTION

The examiner objected to the drawings for failing to include a reference numeral 16'.

The examiner's objection is overcome by amending Figure 4 herein to include reference numeral 16'.

III. STEEL IS NOT A COMPOSITE MATERIAL

The Applicant notes that the examiner continues to maintain that steel is a composite material. Steel is not a "composite material" as that term is used in the present application. MPEP §2111 requires that claims be given their broadest possible interpretation "consistent with the specification". Absolutely nowhere in the application specification is there a disclosure or suggestion that would lead one skilled in the art at the time of the invention to understand that a metal alloy is a composite material. In this regard, the examiner's construction of the term "composite material" is overly broad and inconsistent with the specification.

IV. THE OBVIOUSNESS REJECTIONS

The examiner rejected claims 1 and 4-15 for being obvious over Brieger (USP 4,756,371) in view of Willis et al. (USP 5,564,499). The examiner further rejected claims 2-3 for being

obvious over Brieger in view of Willis and in further view of Xu et al. (USP 6,422,148). The examiner's obviousness rejections are traversed below.

A. There Is Not Prima Facie Obviousness

Claims 1-15 are non-obvious and patentable at least because the cited prior art does not disclose or suggest a fibre reinforced composite carrier that will retain debris after detonation. The examiner relies upon Willis for disclosing this feature. Indeed, the Examiner suggests that Willis teaches a charge carrier 1 that may be selected from steel, plastic or plastic composite, which contains debris after firing. The Applicant respectfully disagrees with the examiner's characterization of the Willis disclosure because nowhere does the reference disclose a plastic or plastic composite material that operates as claimed. Turning to Example 1, column 5, Willis discloses a PVC carrier, and further describes from line 34 to 36 that "*Only a small piece of the PVC pipe remained recognisable*". This Willis excerpt clearly teaches the skilled person away form using a plastic component, as the PCV carrier clearly is acting as a frangible carrier in Willis.

The Applicant further directs the Examiner to Example 2, column 5, lines 58 to 60 of Willis wherein a steel pipe was used. The Example goes onto describe that after detonation, the steep pipe became swollen and stuck within the casing. This would inhibit the ability of one to remove the Willis casing from a well after use. The Applicant's invention, one the other hand, is directed to providing a carrier that is able to retain debris and which also avoids becoming swollen, such that after detonation of a shaped charge perforator the housing and debris can be removed from the completion.

The Examiner also suggests that the drawing of Figure 4 in Willis shows the casing 1 intact. The drawing in Figure 4 of Willis shows a case which has been severely damaged, and shows three severed sections of the casing 1, which are merely being held together by point contact at the spacer element 6 (as shown in figure 1). The skilled person would readily understand that these three sections of Willis casing 1, will have little, if any, circumferential support and will therefore undergo expansion in a radial direction as a result of the detonation pressure from the linear cutting charges, which run the entire length of the casing 1. Indeed, such a "swollen" casing is disclosed in Willis Example 2. In contrast, in Applicant's invention, the perforators are located in holes 15, Figure 2, and the remainder of the housing wall 16, provides

circumferential integrity to the gun 11, such that it may be removed from the completion after firing.

In summary, the cited prior art does not disclose or suggest a fibre reinforced composite carrier will retain debris after detonation. The two specific examples in Willis teach either complete pulverisation or expansion of the carrier. Therefore, there is no motivation provided to the skilled person when reading Brieger to consider using the composite material disclosed in Willis in place of the steel carrier. The skilled person must be clearly motivated to try the composite, however as there is no suggestion in Willis as to the outcome of the composite after detonation there can be no clear direction or teaching to suggest that such a combination would provide the desired effect. In other words, the examiner's rejection is based upon speculation and not, as required, on facts.

B. The Cited Art Does Not Support The Examiner's Factual Basis For Combining The References

Claims 1-15 are also non-obvious and patentable because the examiner's cited motivation for combining the references is factually inaccurate. The examiner justifies the combination of Brieger with Willis on the basis that "both Brieger and Willis et al. teach the chare/carrier housing contains debris after firing". However, Willis et al. appears to provide no such express teaching. Therefore, there is no "factual" basis for combining the references – only examiner speculation - and the rejection of claims 1-15 must be withdrawn.

C. Claims 2-3 Are Independently Patentable

The examiner rejected claim 2-3 for being obvious over Brieger and Willis in further view of Xu et al. The examiner noted that neither Brieger nor Willis discloses a device that includes an inner housing wrapped by an outer housing. The examiner relies upon Xu for disclosing an inner housing 23 over a composite material outer housing 20.

Claims 2-3 are non-obvious and patentable at least because the examiner's reliance upon Xu et al. is misplaced. Firstly, the alleged housing 23 of Xu et al. is actually described in the patent as liner. The liner appears to be made of a material such as plastic that is intended to protect the insides of the housing from the environment in the well hole. Secondly, the Xu device is intended, in operation, to shatter into small pieces not larger than 3 inches each. (See column 5, lines 1-6 of Xu et al.). The fact that the Xu et al device is intended to shatter would

strongly suggest to one skilled in the art at the time of the invention that feature 23 is a liner and not a housing. Moreover, the fact that the Xu device is intended to shatter teaches away from its combination with Brieger which is not intended to shatter and create debris external from the device.

Finally, if the Xu liner was applied to overwrap the Willis housing, such as for example fibres, the fibers would be severed when the entire length of the case is cut by the liner charge and would not operate as claimed to substantially retain the debris created within the carrier. For each of the reasons above, claims 2-3 are non-obvious and patentable over the cited prior art.

CONCLUSION

Claims 1-15 are believed to be ready for patenting for the reasons recited above. Favorable reconsideration and allowance of all pending application claims is, therefore, courteously solicited.

McDonnell Boehnen Hulbert & Berghoff LLP

Date: September 9, 2010

By: /A. Blair Hughes/
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312-913-2123

Appendix A

(Marked up Sheet Showing Change to Figure 4)

Fig.3.

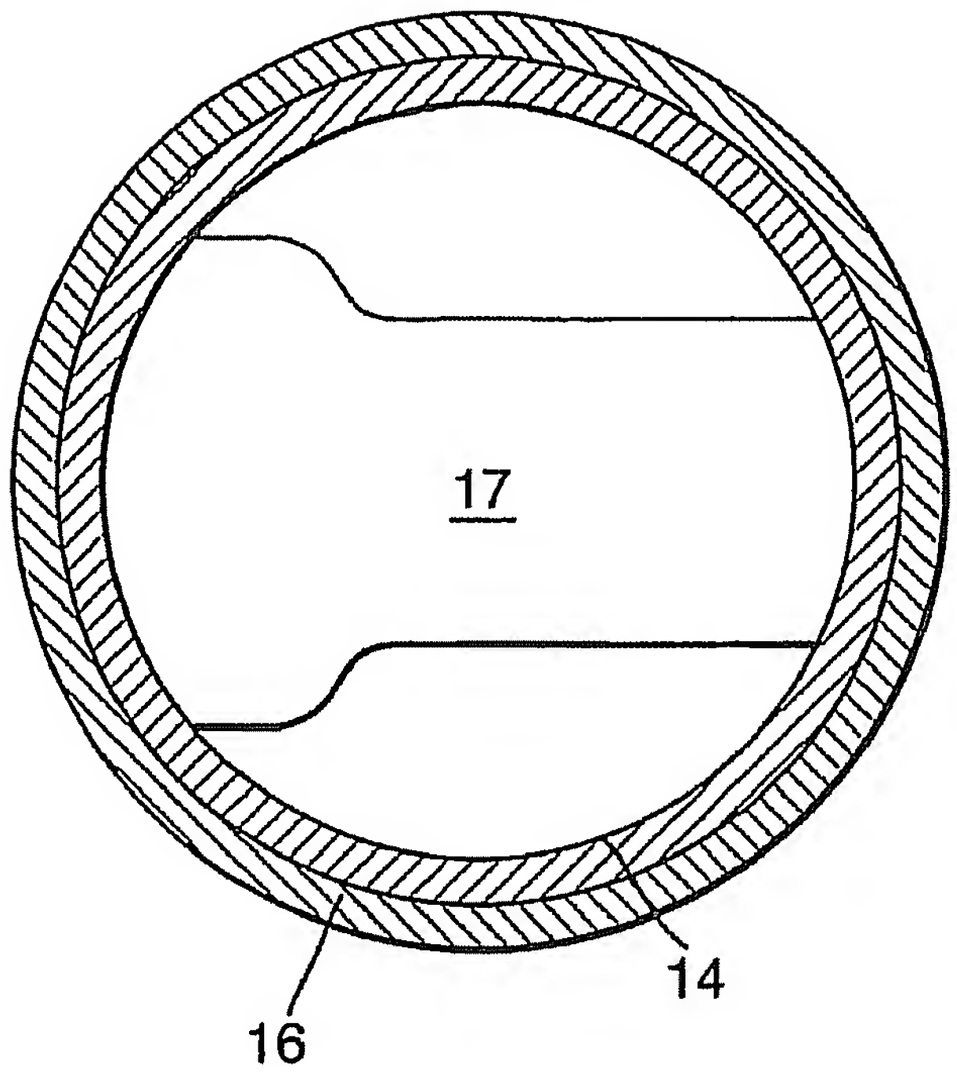
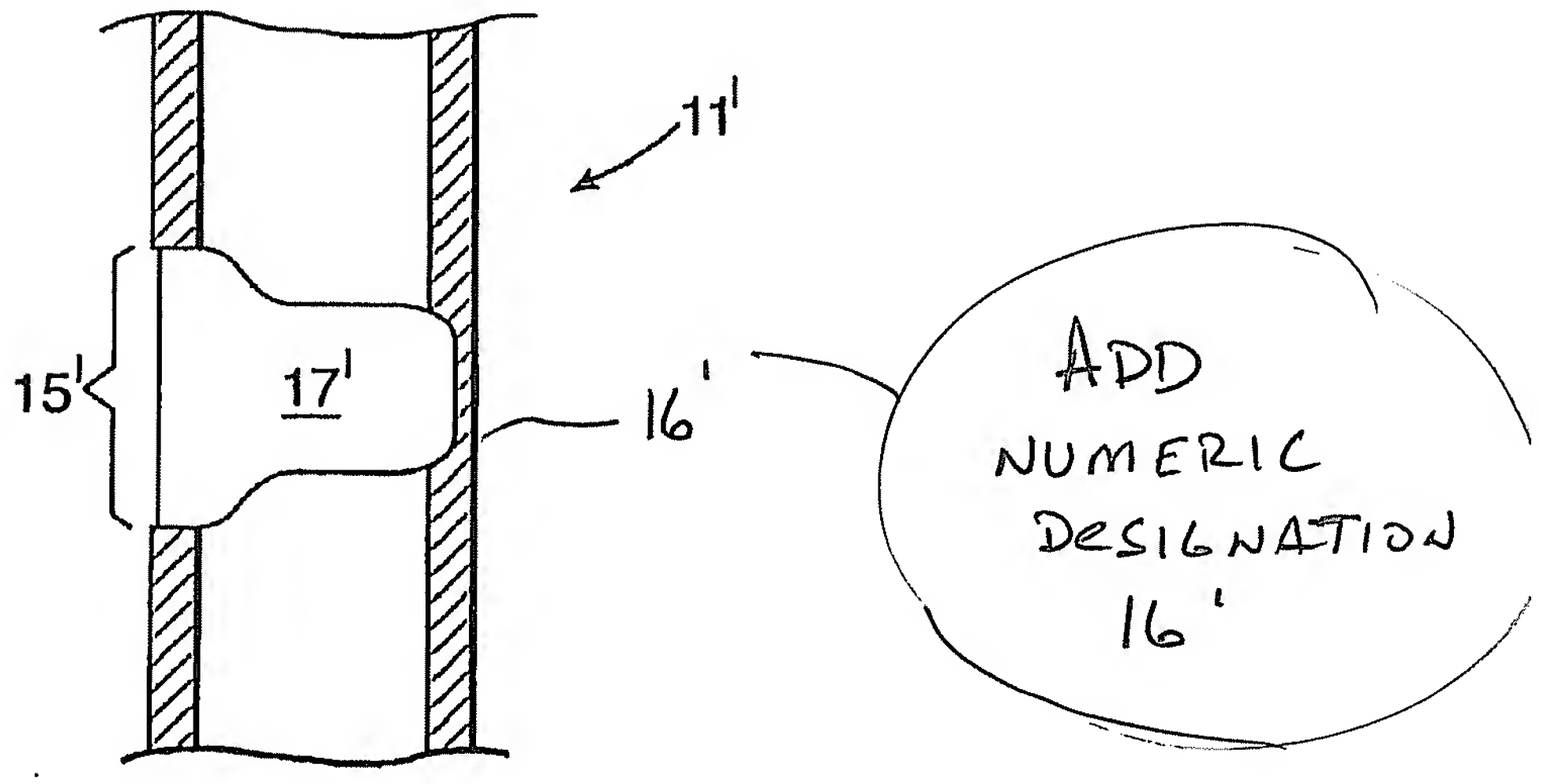


Fig.4.



Appendix B

(Figure 4 "Replacement Sheet)